INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
HAZARDOUS WASTE MANAGEMENT PERMIT

Name of Permittee: Crane Naval Surface Warfare Center

Facility Location: Crane, Indiana

EPA Identification Number: IN 5170023498

Issuance Date: _____

Expiration Date: _____

Authorized Activities

Pursuant to Indiana Environmental Statutes (IC 13) and the rules promulgated thereunder and codified in Title 329 of the Indiana Administrative Code, Article 3.1 (329 IAC 3.1), the State permit conditions (hereinafter called the permit) of the Resource Conservation and Recovery Act of 1976 (RCRA) permit are issued to Crane Naval Surface Warfare Center (hereinafter called the Permittee) to operate a hazardous waste facility located in Crane, Indiana, Section 6, Township 5, Range 4 at latitude 38° 52' 30" N and longitude 86° 52'30" W, Indiana Springs Quadrangle, on the U.S. Geological Survey topographic map.

The State RCRA program is authorized under 40 CFR Part 271 and Section 3006 of RCRA to administer the hazardous waste management program in lieu of the Federal program, including administration of most of the Hazardous and Solid Waste Amendments (HSWA) of 1984. Since the State of Indiana has not yet received authorization to administer the most recent hazardous waste program requirements under HSWA, additional permit conditions may be issued by the U.S. EPA to address these new requirements.

The Permittee is authorized to conduct the following hazardous waste management activities:

	STORAGE		TREATMENT		DISPOSAL
X	Container		Tank		Injection Well
	Tanks		Surface Impoundments		Landfill
	Waste Pile	X	Incinerator		Land Application
	Surface Impoundment	X	Other		

Federal regulations 40 CFR Parts 260 through 270 have been incorporated by reference. Where exceptions to incorporated Federal regulations are necessary, these exceptions will be noted in the text of the State rule 329 IAC 3.1-1-7.

The conditions of this permit were developed in accordance with the following applicable provisions of 329 IAC 3.1:

X ID & Listing of Hazardous Waste
329 IAC 3.1-6
40 CFR 261 Subparts A, B, C, D, and
Appendices I, II, III, VII, VIII, IX, X

X Standards for Owners and Operators of
Treatment, Storage, and Disposal Facilities
329 IAC 3.1-9
40 CFR 264 Subparts A, B, C, D, and E

X Groundwater Protection
329 IAC 3.1-9
40 CFR 264 Subpart F

X Closure and Post-Closure
329 IAC 3.1-9
40 CFR 264 Subpart G

Financial Requirements
329 IAC 3.1-15

X Use and Management of Containers
329 IAC 3.1-9
40 CFR 264 Subpart I

Tank Systems
329 IAC 3.1-9
40 CFR 264 Subpart J

Surface Impoundments
329 IAC 3.1-9
40 CFR 264 Subpart K

Waste Piles
329 IAC 3.1-9
40 CFR 264 Subpart L

Land Treatment
329 IAC 3.1-9
40 CFR 264 Subpart M

Landfills
329 IAC 3.1-9
40 CFR 264 Subpart N

X Incinerators
329 IAC 3.1-9
40 CFR 264 Subpart 0

X Corrective Action for Solid Waste Management Units
329 IAC 3.1-9
40 CFR 264 Subpart S

X Miscellaneous Units
329 IAC 3.1-9
40 CFR 264, Subpart X

Drip Pads
329 IAC 3.1-9
40 CFR 264 Subpart W

Air Emission Standards for Process Vents
329 IAC 3.1-9
40 CFR 264 Subpart AA

Air Emission Standards for
Equipment Leaks
329 IAC 3.1-9
40 CFR 264 Subpart BB

X Air Emission Standards for Tanks
Surface Impoundments and Containers
329 IAC 3.1-9
40 CFR 264 Subpart CC

X Hazardous Waste Permit Programs
329 IAC 3.1-13
40 CFR 270 Subparts A, B, C, and D

X Inspection and Investigation
329 IAC 3.1-1-3 and 329 IAC 3.1-1-4

X Enforcement
329 IAC 3.1-1-5

Permit Approval

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (including those in any Attachments) and the applicable rules and requirements contained in 329 IAC 3.1 and 40 CFR 260 through 270 as specified in the permit. Applicable rules are those which are in effect on the date of issuance of this permit. (See 329 IAC 3.1-13; 40 CFR 270.32)

This permit is based on the assumption that the information submitted in the June 2006 permit application, and any subsequent amendments (hereafter referred to as the application) is accurate and that the facility has been or will be constructed and/or operated as specified in the application. Any inaccuracies found in the application may be grounds for the modification, revocation and reissuance, or termination of this permit (329 IAC 3.1-13-7), and potential enforcement action. The Permittee must inform the Indiana Department of Environmental Management (IDEM) of any deviation from, or changes in, the information in the application which would affect the Permittee's ability to comply with the applicable rules or permit conditions.

Pursuant to IC 13-15-5-3 and IC 4-21.5-3-5(f), this permit takes effect fifteen (15) days from receipt of this notice. If you wish to challenge this decision, IC 13-15-6-1 and IC 4-21.5-3-7 require that you file a Petition for Administrative Review. If you seek to have the effectiveness of the permit stayed during administrative review, you must also file a Petition for Stay. The petition(s) must be submitted to the Office of Environmental Adjudication, Government Center North, Room 1049, 100 North Senate Avenue, Indianapolis, Indiana 46204, within fifteen (15) days after your receipt of this notice. The petition(s) must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision, or otherwise entitled to review by law. Identifying the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, or date of this notice will expedite review of the petition. Additionally, IC 13-15-6-2 requires that a Petition for Administrative Review must include:

1. The name and address of the person making the request.

2. The interest of the person making the request.

3. Identification of any persons represented by the person making the request.

4. The reasons, with particularity, for the request.

5. The issues, with particularity, proposed for consideration at the hearing.

6. Identification of the terms of the permit which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the

requirements of the law governing licenses of the type granted or denied by the Commissioner.

Pursuant to IC 4-21.5-3-1(f), any document serving as a petition for review or review and stay must be filed with the Office of Environmental Adjudication. Filing of such a document is complete on the earliest of the following dates:

1. the date on which the petition is delivered to the Office of Environmental Adjudication, Government Center North, Room 1049, 100 North Senate Avenue, Indianapolis, Indiana 46204;

2. the date of the postmark on the envelope containing the petition, if the petition is mailed by United States mail; or

3. the date on which the petition is deposited with a private carrier, as shown by a receipt issued by the carrier, if the petition is sent by private carrier.

The portions of the permit for which a Petition for Stay has been filed will take effect at the expiration of the additional fifteen (15) day period unless or until an Environmental Law Judge stays the permit in whole or in part. This permit shall remain in effect until five (5) years from the effective date unless revoked and reissued, modified, or terminated (329 IAC 3.1-13-7), or continued in accordance with IC 13-15-6-3.

This permit terminates and supersedes any other State hazardous waste management permit.

Issued this_____day of_____200__.

By:

Thomas E. Linson, Chief
Permits Branch
Office of Land Quality

CRANE NAVAL SURFACE WARFARE CENTER
CRANE, INDIANA
IN5170023498

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I. STANDARD CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to treat and store hazardous waste in accordance with the conditions of the RCRA permit. Any treatment or storage of hazardous waste not authorized in this permit or the regulations is prohibited.

Pursuant to 329 IAC 3.1 and 40 CFR 260 through 270 (for HSWA Provisions), compliance with the conditions of this RCRA Permit generally constitutes compliance for purposes of enforcement, with the Indiana Environmental Management Act and RCRA, as amended by HSWA, except for those requirements not included in the Permit which become effective by statute, or which are promulgated under 329 IAC 3.1 and 40 CFR Section 260 through 270, restricting the placement of hazardous wastes in or on the land. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State, or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any Order issued or any action brought under Section 3013 or Section 7003 of RCRA; Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 601), commonly known as CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 9606(a)), commonly known as SARA, or any other law providing for protection of public health or the environment. 329 IAC 3.1-13; 40 CFR 270.4; IC 13

B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in 329 IAC 3.1-13-7. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.

C. SEVERABILITY

The provisions of the permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. In the event that a condition of this permit is stayed for any reason, all provisions of the permit severable from the stayed provisions shall take effect. With regard to stayed provisions of the permit, the Permittee shall continue to comply with the related applicable standards until final resolution of the stayed condition, unless the

Commissioner of the Indiana Department of Environmental Management (Commissioner) determines that compliance with the related applicable and relevant standards would be technologically incompatible with other conditions of this permit which have not been stayed. 329 IAC 3.1-13; 40 CFR 270.32

D. DUTIES AND REQUIREMENTS

1. Duty to Comply. The Permittee shall comply with all conditions of the RCRA permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of IC 13 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. 329 IAC 3.1-13; 40 CFR 270.30(a); 270.61

2. Duty to Reapply. The Permittee shall submit a complete application for a new permit at least 180 days before this permit expires unless: a) the Permittee no longer wishes to operate a hazardous waste management facility or the Permittee is no longer required to have a RCRA permit, or b) permission for submittal on a later date has been granted by the Commissioner. 329 IAC 3.1-13; 329 IAC 3.1-13-3(h); 40 CFR 270.30(b)

   The corrective action obligations contained in this permit will continue regardless of whether the facility continues to operate or ceases operation and closes. The Permittee must submit an application for permit reissuance at least 180 days before the expiration date of this permit pursuant to 40 CFR 270.10(h) unless: a) the permit has been modified to terminate the corrective action schedule of compliance and the Permittee has been released from the requirements for financial assurance for corrective action; or b) permission for a later date has been granted by the Commissioner. The Commissioner shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

3. Permit Expiration. The duration of this permit shall not exceed five (5) years from the effective date of the permit, except as provided by 329 IAC 3.1-13-15. This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application for a new permit and through no fault of the Permittee, the Commissioner has not issued a new permit with an effective date under 329 IAC 3.1-13-14 on or before the expiration date of the previous permit. 329 IAC 3.1-13-16

4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of

this permit. 329 IAC 3.1-13; 40 CFR 270.30(c)

5. Duty to Mitigate. In the event of non-compliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. 329 IAC 3.1-13; 40 CFR 270.30(d)

6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facility or similar systems only when necessary to achieve compliance with the conditions of the permit. 329 IAC 3.1-13; 40 CFR 270.30(e)

7. Duty to Provide Information. The Permittee shall furnish to the Commissioner, within a reasonable time, any relevant information which the Commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Commissioner, upon request, copies of records required to be kept by this permit. 329 IAC 3.1-13; 40 CFR 270.30(h); 264.74

8. Inspection and Entry. Pursuant to 329 IAC 3.1-1-3 and 40 CFR 270.30(i), the Permittee shall allow the Commissioner, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

   a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit (329 IAC 3.1-13; 40 CFR 270.30(i)(l));

   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit (329 IAC 3.1-13; 40 CFR 270.30(i)(2));

   c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit (329 IAC 3.1-13; 40 CFR 270.30(i)(3)); and

   d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by IC 13, any substances or parameters at any location (329 IAC 3.1-13; 40 CFR 270.30(i)(4)).

9. Monitoring and Reporting.

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from 329 IAC 3.1-6; 40 CFR 261, Appendix I. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, (Third Edition as amended by updates) (as referenced in 40 CFR 260.11); Standard Methods for the Examination of Water and Wastewater, (the 19th Edition, 1995); or an equivalent method as specified in the attached Waste Analysis Plan. 329 IAC 3.1-13; 40 CFR 270.30(j)(l)

b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three (3) years from the date of the sample, measurement, report, or record or for a period of time greater than three (3) years as specified elsewhere in this permit. Corrective Action records must be maintained at least 3 years after all Corrective Action activities have been completed. These periods may be extended by request of the Commissioner at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. 329 IAC 3.1-13; 40 CFR 270.30(j)(2) and 40 CFR 264.74(b)

c. Pursuant to 329 IAC 3.1-13; 40 CFR 270.30(j)(3), records of monitoring information shall include:

i. The date(s), exact place, and times of sampling or measurements;

ii. The individual(s) who performed the sampling or measurements;

iii. The date(s) analyses were performed;

iv. The individual(s) and laboratory who performed the analyses;

v. The analytical technique(s) or method(s) used. Analytical technique(s) or method(s) is defined as encompassing both the sampling technique (method) and method of chemical analysis used. This information must be provided in the Waste Analysis Plan; and

vi. The result(s) of such analyses, including QA/QC documentation.

d. Monitoring results shall be reported to the Commissioner at the intervals specified elsewhere in this permit. 329 IAC 3.1-13; 40 CFR 270.30(1)(4)

10. Reporting Planned Changes. The Permittee shall give notice to the Commissioner as soon as possible of any planned physical alterations or additions to the permitted facility. 329 IAC 3.1-13; 40 CFR 270.30(1)(1)

11. Certification of Construction or Modification. Pursuant to 329 IAC 3.1-13; 40 CFR 270.30(1)(2), the Permittee may not treat, store or dispose of hazardous waste in a modified portion of the facility except as provided in 40 CFR 270.42 until:
    (a) the Permittee has submitted to the Commissioner by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
    (b) (i) the commissioner has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or
    (ii) the Commissioner has waived the inspection.

12. Transfer of Permits. This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to 329 IAC 3.1-13; 40 CFR 270.40(b) or 40 CFR 270.41(b)(2) to identify the new Permittee and incorporate such other requirements as may be necessary under IC 13. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator, in writing, of the requirements of 329 IAC 3.1 and IC 13, including all applicable corrective action requirements. 329 IAC 3.1-13; 40 CFR 270.40

13. Reporting Anticipated Noncompliance. The Permittee shall give advance notice to the Commissioner of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. Such notification does not excuse the Permittee's duty to comply with permit requirements. 329 IAC 3.1-13; 40 CFR 270.30(1)(2)

14. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date. 329 IAC 3.1-13; 40 CFR 270.30(1)(5)

15. Twenty-four Hour Reporting. The Permittee shall report to the Commissioner any noncompliance with the permit which may endanger health or the environment. Any such information shall be reported orally to the IDEM 24 hour emergency

telephone number 317/233-7745, within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. Pursuant to 329 IAC 3.1-13; 40 CFR 270.30(1)(6), this report shall include the following:

a. Information concerning the release of any hazardous waste which may endanger public drinking water supplies.

b. Information concerning the release or discharge of any hazardous waste, or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:

   i. Name, address, and telephone number of the owner or operator;

   ii. Name, address, and telephone number of the facility;

   iii. Date, time, and type of incident;

   iv. Name and quantity of material(s) involved;

   v. The extent of injuries, if any;

   vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

   vii. Estimated quantity and disposition of recovered material that resulted from the incident.

A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Permittee need not comply with the five (5)-day written notice requirement if the Commissioner waives the requirement and the Permittee submits a written report within fifteen (15) days of the time the Permittee becomes aware of the circumstances.

16. Other Noncompliance. The Permittee shall report all instances of noncompliance not otherwise required to be reported under Condition I.D.15, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Condition I.D.15. 329 IAC 3.1-13; 40 CFR 270.30(1)(10)

17. Other Information. When the Permittee becomes aware that the facility failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Commissioner, the Permittee shall promptly submit such facts or information. 329 IAC 3.1-13; 40 CFR 270.30(1)(11)

18. Submittal of Reports or Other Information. All reports or other information required to be submitted by the terms of this permit shall be sent to:

    Commissioner
    Indiana Department of Environmental Management
    100 North Senate Avenue
    Indianapolis, IN 46204-2241
    Attention: Chief, Land Quality Permits Branch

19. All other requirements contained in RCRA, as amended, and in 40 CFR 270.30 not set forth herein are hereby fully incorporated in this permit.

E. SIGNATORY REQUIREMENT All reports or other information requested by the Commissioner shall be signed and certified as required by 329 IAC 3.1-13; 40 CFR 270.11.

F. CONFIDENTIAL INFORMATION The Permittee may claim confidential any information required to be submitted by this permit in accordance with 329 IAC 3.1-13-4, 329 IAC 6.1, and IC 13-14-11-1.

G. WASTE MINIMIZATION

The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that the Permittee generates to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment, in accordance with 40 CFR 264.73(b)(9) and Section 3005(h) of RCRA, 42 U.S.C. §6925(h). The certifications shall be recorded, as they become available, and maintained in the operating record until closure of the facility.

H. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE Except as noted in the regulations, the Permittee shall maintain at the facility, until closure is completed and certified by the owner/operator and an independent registered professional engineer, the following documents and amendments, revisions and modifications to these documents:

1. Waste Analysis Plan as required by 329 IAC 3.1-9, 40 CFR 264.13 and this permit

and any document(s) referenced therein to describe on-site procedures.

2. Personnel training documents and records as required by 329 IAC 3.1-9, 40 CFR 264.16(d) and (e) and this permit.

3. Contingency Plan as required by 329 IAC 3.1-9, 40 CFR 264.53(a), and this permit.

4. Closure Plan as required by 329 IAC 3.1-9, 40 CFR 264.112(a)(2), and this permit.

5. Cost estimate for facility closure as required by 329 IAC 3.1-15-3, and this permit.

6. Operating record as required by 329 IAC 3.1-9, 40 CFR 264.73, and this permit.

7. Inspection schedules as required by 329 IAC 3.1-9, 40 CFR 264.15(b)(2), and this permit.

8. Record of facility inspections, as required by 329 IAC 3.1-9, 40 CFR 264.15(d), and this permit, shall be maintained for at least three years.

9. Copies of all manifests for shipments of hazardous waste received at and originating from this facility, as required by 329 IAC 3.1-7, 329 IAC 3.1-9-2(6) 40 CFR 262.40, 40 CFR 264.71, and this permit, shall be maintained for at least three years.

10. Notifications from generators subject to 40 CFR Part 268, Subtitle C, that specify treatment standards, as required by 40 CFR 264.73, 268.7, and this permit.

11. Waste minimization certifications must be part of the operating record as required by 40 CFR 264.73(b)(9).

12. Corrective Action reports and records as required by Permit Conditions VIII of this permit. These reports and records must be maintained for at least 3 years after all Corrective Action Activities have been completed; and

13. Records regarding closed-vent systems and control devices and/or equipment leaks as required by Permit Condition VII of this permit.

14. Groundwater Monitoring Plan as required required by 329 IAC 3.1-9, 40 CFR 264.97 and this permit and any documents referenced therein to describe on-site procedures.

15. Groundwater Monitoring data as required by 329 IAC 3.1-9, 40 CFR 264.97 and this permit.

II. GENERAL FACILITY CONDITIONS

A. DESIGN AND OPERATION OF FACILITY The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, groundwater or surface water which could threaten human health or the environment.

B. REQUIRED NOTICE

(1) The Permittee shall notify the Commissioner in writing at least four (4) weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source. Notice of subsequent shipments of the same waste having the same EPA hazardous waste number from the same foreign source is not required. 329 IAC 3.1-9, 40 CFR 264.12(a)

(2) When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), it must inform the generator in writing that it has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the operating record. (See Permit Condition II.K.1). 329 IAC 3.1-9, 40 CFR 264.12(b)

(3) The Permittee may not receive hazardous waste from an off-site source, with the exceptions of:
(a) the condition in Section C-2e of Attachment 0.
(b) hazardous waste munitions stored and handled in accordance with the Department of Defense Explosive Safety Board (DDESB) standards.

C. GENERAL WASTE ANALYSIS The Permittee shall comply with the procedures described in Section C, Waste Analysis Plan in Attachments 0 , I, II, III, IV and V, which are incorporated herein by reference.

D. SECURITY The Permittee shall comply with the security provisions of 329 IAC 3.1-9 and 40 CFR 264.14(b) and (c) as described in Section F, Procedures to Prevent Hazards of Attachments 0, I, II, III, IV and V, which are incorporated herein by reference.

E. GENERAL INSPECTION REQUIREMENTS The Permittee shall follow the inspection schedule in Section F, Procedures to Prevent Hazards in Attachments 0 , I, II, III, IV and V. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 329 IAC 3.1-9 and 40 CFR 264.15(c). Records of inspections shall be kept as required by 329 IAC 3.1-9 and 40 CFR 264.15(d).

F. PERSONNEL TRAINING The Permittee shall conduct personnel training as required by

329 IAC 3.1-9 and 40 CFR 264.16. This training program shall follow the attached outline in Section H, Personnel Training Plan in Attachments 0, I, II, III, IV, and V, which are incorporated herein by reference. The Permittee shall maintain training documents and records as required by 329 IAC 3.1-9 and 40 CFR 264.16(d) and (e).

G. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE The Permittee shall comply with the requirements of 329 IAC 3.1-9 and 40 CFR 264.17.

H. PREPAREDNESS AND PREVENTION

1. Required Equipment. The Permittee shall equip the facility with the equipment set forth in the Contingency Plan, Appendix 1, which is incorporated herein by reference, and as required by 329 IAC 3.1-9 and 40 CFR 264.32.

2. Testing and Maintenance of Equipment. The Permittee shall test and maintain the equipment specified in the Condition II.H.1. (see the previous permit condition) as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the inspection schedule in Section F, Procedures to Prevent Hazards in Attachments 0, I, II, III, IV, and V.

3. Access to Communications or Alarm System. The Permittee shall maintain access to the communications or alarm systems as required by 329 IAC 3.1-9 and 40 CFR 264.34.

4. Required Aisle Space. The Permittee shall maintain aisle space as required by 329 IAC 3.1-9 and 40 CFR 264.35.

5. Arrangements with Local Authorities. The Permittee shall attempt to make arrangements with State and local authorities as required by 329 IAC 3.1-9 and 40 CFR 264.37. If State or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

I. CONTINGENCY PLAN

1. Implementation of Plan. The Permittee shall immediately comply with the provisions of the Contingency Plan in Appendix 1, and follow the emergency procedures described by 329 IAC 3.1-9-2(4) and (5) and 40 CFR 264.56 whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which threatens or could threaten human health or the environment.

2. Copies of Plan. The Permittee shall comply with the requirements of 329 IAC 3.1-

9 and 40 CFR 264.53.

3. Amendments to Plan. The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by 329 IAC 3.1-9 and 40 CFR 264.54.

4. Emergency-Coordinator. The Permittee shall comply with the requirements of 329 IAC 3.1-9 and 40 CFR 264.55, concerning the Emergency Coordinator.

J. MANIFEST SYSTEM The Permittee shall comply with the manifest requirements of 329 IAC 3.1-9, 40 CFR 264.71, 264.72, and 264.76.

K. RECORD KEEPING AND REPORTING In addition to the record keeping and reporting requirements specified elsewhere in this Permit, the Permittee shall comply with the following record keeping and reporting requirements:

1. Operating Record. The Permittee shall maintain a written operating record at the facility in accordance with 329 IAC 3.1-9 and 40 CFR 264.73.

2. Sampling and Analysis Records. The Permittee shall keep original or exact copies of all sampling and analysis records. These records shall be kept in an orderly manner and available for inspection, in accordance with 329 IAC 3.1-9 and 40 CFR 264.74.

3. Biennial Report. The Permittee shall comply with the biennial report requirements of 329 IAC 3.1-9 and 40 CFR 264.75.

L. CLOSURE

1. Performance Standard. The Permittee shall close the facility as required by 329 IAC 3.1-9 and 40 CFR 264.111 and in accordance with Section I, Closure Plan of Attachments I, II, III, IV, and V which are incorporated herein by reference.

2. Amendment to Closure Plan. The Permittee shall amend the Closure Plan in accordance with 329 IAC 3.1-9 and 40 CFR 264.112(c) whenever necessary, and whenever requested by the Commissioner in accordance with 40 CFR 264.112(c)(4).

3. Notification of Closure. Pursuant to 329 IAC 3.1-9 and 40 CFR 264.112(d) the Permittee shall notify the Commissioner in writing at least sixty (60) days prior to the date he expects to begin closure of a surface impoundment, waste pile, land treatment, or landfill unit, or final closure of a facility with such a unit. The Permittee must notify the Commissioner in writing at least forty-five (45) days prior to the date on which he expects to begin final closure of a facility with only

treatment or storage tanks, container storage, or incinerator units to be closed.

4. Time Allowed for Closure. After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste in accordance with the schedule specified in Section I, Closure Plan of Attachments I, II, III, IV, and V. After receiving the final volume of hazardous waste, the Permittee shall complete closure activities in accordance with the schedule specified in the Closure Plan.

5. Disposal and/or Decontamination of Equipment. When closure is completed, the Permittee shall decontaminate and/or dispose of all facility equipment contaminated with hazardous waste as required by 329 IAC 3.1-9, 40 CFR 264.114 and Section I, Closure Plan of Attachments I, II, III, IV, and V.

6. Certification of Closure. When closure is completed, the Permittee and an independent registered professional engineer shall certify to the Commissioner that the facility has been closed in accordance with the specifications in the Closure Plan as required by 329 IAC 3.1-9 and 40 CFR 264.115.

M. LAND DISPOSAL RESTRICTIONS

1. The Permittee shall comply with all the applicable self-implementing requirements of 40 CFR Part 268 and all applicable land disposal requirements which become effective by federal statute.

2. The Permittee shall comply with the dilution prohibition requirements described in 40 CFR 268.3.

3. The Permittee shall comply with all testing, tracking, and recordkeeping requirements for treatment facilities described in 40 CFR 268.7.

4. The Permittee shall comply with all the applicable prohibitions on storage of restricted wastes specified in 40 CFR 268 Subpart E.

5. If the Permittee applies to the administrator of the EPA for an exemption from land disposal restrictions described in 329 IAC 3.1-12-2, the Permittee must submit copies of such request and all supporting documents to the commissioner. If the Permittee obtains an exemption from the administrator of the EPA, the Permittee must apply to the commissioner for concurrence that such an exemption is consistent with the policies outlined in IC 13.

III. CONTAINER STORAGE CONDITIONS

A. WASTE IDENTIFICATION

1. The Permittee may store a total volume of 19,309 gallons of wastes which may contain free liquids in containers in Buildings 2993 and 2993A, and 106,920 gallons of wastes not containing free liquids in the Central Storage Facility Outside Non-Liquid Hazardous Waste Storage Area subject to the terms of this permit. The following hazardous wastes may be stored subject to the terms of this permit:

WASTE	HAZARDOUS CONSTITUENT	HAZARDOUS WASTE NO.
Acids, Waste	Acetic Acid Chromium Fluoboric Acid Hydrochloric Acid Lead Nitric Acid Phosphoric Acid Sodium Acid Sulfate Fluoroacetic Acid DPN Phosphate Thallium sulfate	D002/D008 D007 P058 P041 P115
Aerosols, Off-spec and defective can (propellants)	Butane Propane	D001
Bases, waste including caustic cleaners	Ammonium Hydroxide Lead Sodium Hydroxide	D002/D007/D008
Caustic cleaning	Chromium Lead Sodium Hydroxide	D002/D007 D008
Cyanide Bearing waste including some plating wastes	Potassium Thiocyanate Sodium Hydroxide Sodium Cyanide	D002/D003/F006/ F007/F008/F009
Decontamination Agent (Caustic)	Ethylene Glycol Monoethyl Ether Sodium Hydroxide	D001/D002
*Grit Blast Residue (Dust particles removed from air in abrasive sand/grit blast operations removing paint)	Cadmium Chromium Lead	D006 D007 D008
*Incineration, Demil Ash	Chromium Lead Mercury	D007/D008/ D009/D034
*Ash from open burning / open detonation operations	Lead	D008

WASTE	HAZARDOUS CONSTITUENT	HAZARDOUS WASTE NO.
Halogenated solvents, spent including degreasers and coolants	Dichloroethane Methylene Chloride 1,1,1-Trichloroethane Trrichloroethylene (TCE) 1,1,2-Trichloro-1,2,2-Trifluoroethane Tetrachloroethylene	F001/F002/ D040/D028/ D039
*Metallic salt contaminated waste/filtrate from sludge burning pans (non-reactive)	Arsenic Barium Cadmium Chromium Lead Mercury Selenium Silver Methyl Ethyl Ketone Tetrachloroethylene	D002/D004/ D005/D006/ D007/D008/ D009/D010/ D011/D035 D039
Non-halogenated solvents, spent and off-spec, including mineral spirits (petroleum distillates), paint thinner, and Stoddard solvent	Acetone Ethanol Isopropanol Methanol Methyl Ethyl Ketone Methyl Isobutyl Ketone Naptha Toluene Xylene	D001/F003/ F005/U154/ U220/U002/ D035
Oils, off-spec fuels, waste (some of which are ignitable)	Barium Benzene Chromium Lead	D001/D005/ D007/D008/ D018
Paint waste, including sludges, thinners, strippers, primers, and varnishes	Chromium Lead Methane, dichloro Non-halogenated solvents Cadmium	F002/D001/ D007/F003/ F005/U080/ D008
Plastic formulation, including waste and off-spec.	Ethanol Methylene Chloride Trichlorotrifluoro-methane Styrene Monomer Urethane Elastomer Toluene Diisocyanate Halogenated Solvents	D001/D002/ D003/F002
Plating and coating waste including caustic cleaning solution wastes (excluding cyanide bearing wastes)	Boric Acid, Cadmium Chromic Acid, Chromium Hydrofluoric Acid Lead Nitric acid Phosphoric Acid Selenium Sodium Hydroxide For Cyanide bearing (see Cyanide Wastes)	F006/D002/ D006/D007/ D008/D010/ F008

WASTE	HAZARDOUS CONSTITUENT	HAZARDOUS WASTE NO.
Salts, contaminated: Ammonium Nitrate Ceric Ammonium Nitrate Sodium Carbonate Sodium Nitrate Sodium Sulfide	Cadmium Chromium Lead Oxidizers	D001/D006/ D007/D008
Urethane contaminated wastes	Ethyl Carbamate Methylene Chloride	U233/F002
Vanadium pentoxide/titanium tetrachloride mix	Vanadium Pentoxide	D002/P120
Small arms range cleaning	Lead	D008
*Spent carbon from wastewater containing explosives (non-reactive)	Lead Spent Carbon	K046/D006/D007/ D008/D009/K045
Unused or off-specification hazardous materials	2H-1-Benzopyran-2-one, 4-hydroxy-2-(3-oxo-1-phenybutyl)-, & salts, when present at concentrations greater than 0.3% Aresenic Oxide Beryllium Powder Brucine 3-Chloropropionitrile Copper Cyanides Cyanides Nicotine & salts p-Nitroaniline Sodium Azide Sodium Cyanide Acetonitrile Aniline Ethane,1,1'-oxybis-(1) Epichlorohydrin Benzene, hexahydro-(1) Dibutyl phthalate m-Dichlorobenzene Dichlorodifluoromethane Diethyl phthalate p-Dimethylaminoazobenzene 2,4-Dimethylphenol Dimethyl phthalate Di-n-octyl phthalate 1,4 Dioxane Lead Acetate Methyl Ethyl Ketone Peroxide Beta-Naphthylamine Nitrobenzene p-Nitrophenol N-Nitrosopyrrolidine Phthalic anhydride	P001 P012 P015 P018 P027 P029 P030 P075 P77 P105 P106 U003 U012 U025 U041 U056 U069 U070 U075 U088 U093 U101 U102 U107 U108 U144 U160 U168 U169 U170 U180 U190

Unused or off-specification hazardous materials (cont.)	Formaldehyde	U122
	2-Picoline	U191
	Thioacetamide	U218
	Toluenediamine	U221
	Toluene Diisocyanate	U223
	Methan, tribromo-	U225
	Trichloroethylene	U228
	Thiram	U244
	Methoxychlor	U247
	Benzenamine,2-methyl-	U328
	Ethanamine,N,N-diethyl-	U404
	Discarded, unused formulations containing tri-, tetra-, or pentachlorophenol	F027

2. The Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.A.1.

B. UNIT LOCATION The container handling and storage units are located at the Central Storage Facility as shown in the site plan in Attachment 1.

C. CONDITION OF CONTAINERS If a container holding hazardous waste is not in good condition (e.g., appreciable rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this permit. (329 IAC 3.1-9 and 40 CFR 264.171)

D. COMPATIBILITY OF WASTE WITH CONTAINERS The Permittee shall assure that the ability of the container to contain the waste is not impaired as required by 329 IAC 3.1-9 and 40 CFR 264.172.

E. MANAGEMENT OF CONTAINERS

1. The Permittee shall manage containers as follows as required by 329 IAC 3.1-9 and 40 CFR 264.173.

   (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

   (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

   (c) Containers of thirty (30) gallons or more must be stored so that they can be inspected for leaks and for deterioration caused by corrosion or other factors, without having to move the containers during the inspection and must have

adequate aisle space between rows (approximately two and one-half feet (2 1/2)) to facilitate inspection.

2. (a) The Permittee shall be allowed to "stage" incoming containerized wastes in designated areas. Incoming waste shall be placed in permitted units within 3 operating days of entering the facility boundary (or contiguous property controlled by the permittee) unless the permittee rejects all or part of the shipment. In the case of rejected loads the permittee shall have an additional 24 hours to ship the waste off-site to an alternate TSDF or to the generator, in accordance with the requirements of IC 13-22-5. Operating day is defined as any 24 hour period during which at least a partial shift is worked by employees who process, treat, place into storage, or dispose of hazardous waste at the facility.

(b) Containerized waste being transferred from one permitted unit to another (such as from container storage to tank storage) shall remain outside of permitted units only for the minimum time necessary to move the containers and transfer the waste. In no instance shall this transfer period exceed 10 hours.

(c) The Permittee shall not have more than 151,250 gallons of containerized hazardous waste at the facility at any one time. All containers of waste at the facility shall be counted towards the permitted capacity including, but not limited to, containerized waste in trucks, in trailers, on the loading docks, in permitted storage units, and in processing areas.

F. CONTAINMENT The Permittee shall construct, operate, and maintain the containment system in accordance with the requirements of 329 IAC 3.1-9 and 40 CFR 264.175 as specified in Section D, Process Information of Attachment I, which is incorporated herein by reference.

G. INSPECTION The Permittee shall inspect the container storage areas at least weekly, to detect leaking containers and deterioration of containers and the containment system, caused by corrosion or other factors, as required by 329 IAC 3.1-9 and 40 CFR 264.174.

H. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE The Permittee shall not locate containers holding ignitable or reactive waste within fifteen (15) meters (fifty (50) feet) of the facility's property line, as required by 329 IAC 3.1-9 and 40 CFR 264.176.

I. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

1. Prior to placing incompatible waste or incompatible waste and materials in the same container, the Permittee shall comply with 329 IAC 3.1-9 and 40 CFR 264.17(b) as

specified in Section D, Process Information of Attachment I.

2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or materials.

3. The Permittee shall separate containers of incompatible wastes as indicated in Section D, Process Information of Attachment I, as required by 329 IAC 3.1-9 and 40 CFR 264.177(c).

4. The Permittee must document compliance with Permit Condition I.I.3. as required by 329 IAC 3.1-9 and 40 CFR 264.17(c) and place this documentation in the operating record (Permit Condition II.K.1.).

J. CLOSURE REQUIREMENTS

1. At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed, as required by 329 IAC 3.1-9 and 40 CFR 264.178, and in accordance with Section I, Closure Plan of Attachment I.

2. At closure, as throughout the operating period, unless the Permittee can demonstrate in accordance with 329 IAC 3.1-9 and 40 CFR 261.3(d) that the solid waste removed from the containment system is not a hazardous waste, the Permittee becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of 329 IAC 3.1 and 40 CFR 262 through 266. (329 IAC 3.1-9 and 40 CFR 264.178)

3. Upon certification by the owner/operator and an independent registered professional engineer that part or all of the storage facility has been properly closed, those provisions of this permit which allow for the continued operation of the closed portion of the facility are terminated. The amount of wastes allowed to be stored is reduced to reflect the partial closure of this facility. Waste types which were only authorized for storage at the closed portion of the facility are deleted from this permit.

IV. INCINERATOR CONDITIONS

A. CONSTRUCTION AND MAINTENANCE

The Permittee shall construct the Mobile Plasma Treatment System and the Ammunition Peculiar Equipment 1236 incinerators in accordance with the Significant Source Modification Approval (SSMA) for combustion of solid and liquid waste, and the design plans and specification contained in the SSMA Application. An SSMA is required by the Air Program pursuant to 326 IAC 2-1.1.2(b) and with 326 IAC 2-7-10.5. The incineration system will be designed to comply with the Hazardous Waste Combustor (HWC) MACT standards pursuant to 40 CFR 63 Subpart EEE.

B. LOCATION OF INCINERATORS

The Mobile Plasma Treatment System and the Ammunition Peculiar Equipment 1236 incinerators are located as shown in Exhibit B-13.

C. PERFORMANCE STANDARD

The Permittee shall operate and maintain the Mobile Plasma Treatment System and the Ammunition Peculiar Equipment 1236 incinerators in accordance with the Hazardous Waste Combustor (HWC) MACT standards pursuant to 40 CFR 63 Subpart EEE. The incinerator feed systems shall be operated as described in the Section D, Process Description of Attachments II and IV of this permit.

The Permittee shall provide provide a copy of any comprehensive performance test plan to the Office of Land Quality, RCRA Permits Branch Chief, at the time such CPT test plan is submitted to the Office of Air Quality. The Commissioner may require additional information in order to determine whether additional controls are necessary to ensure protection of human health and the environment in accordance with 40 CFR 270.10(l).

If, as the result of an assessment(s) or other information collected in accordance with 40 CFR 270.10(l), the Commissioner determines that conditions are necessary in addition to those required under 40 CFR parts 63, subpart EEE, or 264 to ensure protection of human health and the environment, he shall propose a modification to this permit to include those terms and conditions, in accordance with 40 CFR 270.32(b)(3).

D. LIMITATIONS ON WASTES

The Permittee shall incinerate only hazardous wastes as described in Section C, Waste Characteristics of Attachments II and IV of this permit.

E. CLOSURE REQUIREMENTS

1. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from each incinerator site in accordance with 329 IAC 3.1-9, 40 CFR 264.351 and Section I, Closure Plan of Attachments II and IV.

2. At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with 329 IAC 3.1-9 and 40 CFR 264.3(d) that the residue removed from the incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with applicable requirements of 329 IAC 3.1-7, 3.1-9, 3.1-10, 3.1-14, 3.1-15, 40 CFR 262 through 264. 329 IAC 3.1-9, 40 CFR 264.351

3. Upon certification by the owner/operator and an independent registered professional engineer that part or all of this incinerator unit has been properly closed, those provisions of this permit which allow for the continued operation of the closed portion of the facility are terminated. Waste types which were only authorized for incineration in this particular unit at the closed portion of the facility are deleted from this permit. 329 IAC 3.1-9 and 40 CFR 264.115.

V. CONTAINED DETONATION CHAMBER (CDC) CONDITIONS – MISCELLANEOUS TREATMENT UNIT

A. FACILITY MAINTENANCE

The Permittee shall maintain the D-200 Contained Detonation Chamber (CDC) facility as described in Section D, Process Description of Attachment III of this permit.

No modification to the CDC and its air pollution control equipment shall be made which would affect the achievement of the performance standards in Permit Condition V.C. or any other permit conditions specified in this permit, without first obtaining written approval from the Commissioner.

B. UNIT LOCATION

The location of the CDC is shown in Exhibit B-13.

C. PERFORMANCE STANDARD

The Permittee shall maintain the CDC so that, when operated in accordance with the operating requirements specified in this permit, it will meet the following performance standards:

1. The CDC shall not have any release that may have an adverse effect on human health or the environment due to migration of waste constituents in the groundwater, surface water, or air.

2. The CDC shall not emit particulate matter in excess of 180 milligrams per dry standard cubic meter when corrected for the amount of oxygen in the stack gas in accordance with the formula specified in 329 IAC 3.1-9 and 40 CFR 264.343(c).

3. Compliance with the operating conditions specified in this permit will be regarded as compliance with the above performance standards. The operating conditions will be established during the performance test that shows emissions are acceptable in accordance with the "Risk Equivalency Demonstration for the MPTS, CDC, and APE 1236 Incinerator". However, any evidence that compliance with such permit conditions is insufficient to ensure compliance with the above performance standards may be "information" justifying modification, revocation, or reissuance of the permit pursuant to 329 IAC 3.1-13-7.

D. LIMITATION ON WASTES

The Permittee shall detonate only hazardous wastes as described in Section C, Waste Characteristics of Attachment III of this permit.

E. OPERATING CONDITIONS AND MONITORING

The Permittee shall place or detonate the wastes described in Permit Condition V.D. in the CDC only when the unit is operated as described in Attachment III and in accordance with the following conditions:

1. Hazardous waste shall not be placed in the CDC unless the CDC is operating in compliance with all conditions specified in this permit.

2. The Permittee shall prevent fugitive emissions from the CDC by ensuring that there are no leaks through which fugitive emissions may exit the unit. This is to be verified during the daily inspection while the equipment is operating. The daily visual inspection is required by 329 IAC 3.1-9, 40 CFR 264.602, and 40 CFR 264.347(b).

3. The Permittee shall record and maintain the monitoring and inspection data as required by 329 IAC 3.1-9, 40 CFR 264.602, and 40 CFR 264.347(d).

4. The Permittee shall record the feed rate to the CDC in an operations log. The feed rate shall be established during the performance test. The target feed rate shall be eighty-five (85) pounds of net explosive weight per detonation at not more than ten (10) detonations per hour.

5. The CDC shall be purged during and following each detonation. The fan speed duration of the purge cycle will be established as part of the performance test. The target purge time will be three (3) minutes.

6. The expansion chamber shall be maintained at a pressure less than atmospheric pressure prior to detonation of waste. The specific pressure to be maintained shall be established as part of the performance test. This pressure shall be monitored and recorded continuously.

7. The pressure drop across the air filter cartridges shall be maintained at a minimum to be determined during the performance test. The air filter pressure drop shall be maintained except when the door is open for placing waste for detonation. The air filter pressure drop shall be monitored and recorded continuously.

8. The Permittee must cease waste feed immediately when changes in waste feed, operating conditions, or monitored parameters cause the CDC to exceed limits

prescribed in this permit.

9. The Permittee shall maintain a separate log of all permit based CDC shutdown events. This log will contain, at a minimum, the date and time of the event, the reason for the waste feed, possible causes, action(s) taken to achieve operating within permit limits, and the name of the operator.

10. The Permittee shall submit a report for any month in which the waste is discontinued for any permit-related cause. The report shall include for each event; date and time; possible causes; actions taken; and the time waste feed resumed. Each report is due within thirty (30) days of the last day of each month.

11. Upon request of the Commissioner, the Permittee shall perform the test required by 329 IAC 3.1-9, 40 CFR 264.601, and 40 CFR 264.347(a)(3).

F. CLOSURE REQUIREMENTS

1. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, fly ash and bottom ash) from the CDC site in accordance with 329 IAC 3.1-9, 40 CFR 264.351 and Section I, Closure Plan of Attachment III.

2. At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with 329 IAC 3.1-9 and 40 CFR 264.3(d) that the residue removed from the CDC is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with applicable requirements of 329 IAC 3.1-7, 3.1-9, 3.1-10, 3.1-14, 3.1-15, 40 CFR 262 through 264. 329 IAC 3.1-9, 40 CFR 264.351

3. Upon certification by the owner/operator and an independent registered professional engineer that part or all of the CDC unit has been properly closed, those provisions of this permit which allow for the continued operation of the closed portion of the facility are terminated. Waste types which were only authorized for detonation in this particular unit at the closed portion of the facility are deleted from this permit. 329 IAC 3.1-9 and 40 CFR 264.115.

VI. OPEN BURNING/OPEN DETONATION (OB/OD) CONDITIONS – MISCELLANEOUS UNITS

A. WASTE IDENTIFICATION

1. Ammunition Burning Ground (ABG)

   The Permittee may treat the types of wastes listed with the unit symbols ABG in Figure V.B-1 at the Ammunition Burning Ground (Open Burning Unit), subject to the terms of this permit.

2. Old Rifle Range (ORR)

   The Permittee may treat the types of wastes listed with the unit symbol ORR in Figure V.B-1 at the Old Rifle Range (Open Burning Unit), subject to the terms of this permit.

3. Demolition Range (DEMO/DR)

   The Permittee may treat the types of wastes listed with the unit symbol DR in Figure V.B-1 at the Demolition Range (Open Detonation Unit), subject to the terms of this permit.

4. The Permittee shall not dispose or treat any liquid hazardous wastes directly on or in the ground.

5. The Permittee may treat wastes generated from on-site processes as well as other Department of Defense (DOD) military installations, military contractors, foreign military munitions used by DOD within the United States or United States Territories as allowed under 40 CFR 266 Subpart M. Propellant/explosive/pyrotechnic (PEP) items confiscated by law enforcement agencies or voluntarily transferred to the DOD by the general public for safe disposal may be accepted provided the wastes may be properly treated at the units as allowed by this permit and 10 USC 2692. The Permittee must notify the Regional Administrator of the waste source, volumes and types prior to accepting the off-site waste except in the case of a Level 1 explosives or munitions emergency response as allowed for under the Military Munitions Rule Implementation Policy.

B. LOCATION INFORMATION

The ABG, ORR, and DR are located in the area shown in Exhibit B-1.

C. DESIGN, CONSTRUCTION AND OPERATION

1. The design, construction, and operation of the OB/OD units shall be as presented in the Section D, Process Information of Attachment VI, the Groundwater Monitoring Plan, and 40 CFR 261.31, so as to prevent the migration of any constituents into the groundwater, surface water, and soil.

2. The Permittee may treat the quantities of reactive wastes in each unit as specified below subject to the terms of this permit. Treatment rates are based on the Final Air Emissions Human Health Risk, incorporated herein by reference, and may be more restrictive than as specified in Table V.B-1. Additional operational requirements are listed in Attachment V. Compliance with these treatment rates shall be documented in the operating record.

    a. Units 3a, 3b, or 3c-ABG may open burn up to nine pans of either 1500 pounds propellant or propellant production scrap or 500 pounds net explosive weight of bulk explosive or explosive scrap per pan per event. Only one sub-unit may operate at any time.

    b. Units 4 or 5-ABG may open burn one pan of up to 100 pounds net explosive weight of PEP contaminated solvent per event. Only one of these units may operate at any time.

    c. Unit 6-ABG may open burn up to eight pans of up to 100 pounds net explosive weight of a mixture of red phosphorous and No. 2 fuel oil per pan per event.

    d. Unit 7-ABG may open burn one pan of up to 100 pounds net explosive weight of scrap pyrotechnics desensitized in No. 2 fuel oil per event.

    e. Unit 8-ABG may open burn one pan of up to 120 pounds net explosive weight of scrap black powder desensitized in water per event.

    f. Unit 9-ABG may open burn on two concrete pads up to 100 pounds net explosive weight PEP contaminated materials per event.

    g. Units 10 and 11-ABG may open burn up to two pans of dewatered, air-dried sludge per event. The maximum treatment rate is 10,000 gallons per month.

    h. Unit 12-ABG may open burn small explosives such as hand grenade fuses and cartridge primers in two pans for up to four hours a day.

    i. Unit 13-ABG may open burn pyrotechnic devices and components in a caged burn box.

j. Units 3a and 3b-ORR may open burn up to 5,000 pounds net explosive weight projectiles or liquids contaminated with ammonium picrate in one containment area per event.

k. Unit 3-DR may open detonate up to seventy (70) pits of up to 500 pounds ammunition or explosives per event. Each pit shall be 6 to 12 feet deep and the waste is covered with 6 to 12 feet of earth.

3. The open burning activities shall not be conducted should the following conditions exist. Compliance shall be documented in the operating record for each event.

a. During electrical storms, thunder storms, or during periods of precipitation.

b. Open burning shall not be initiated should wind speed exceed 15 miles per hour or below 3 miles per hour. The addition of items for open burning in the incendiary cage (13-ABG) and the primer pit (12-ABG) shall not be continued should the wind speed exceed 15 miles per hour or fall below 3 miles per hour.

c. Open burning shall not be initiated and/or continued should winds carry a visible emissions plume beyond the facility's fence line or cause exposure of operators to emissions.

d. Open burning shall not be conducted during periods of reduced visibility (less than 1 mile).

e. Open burning shall not be conducted on overcast days (more than 80 percent cloud cover) with a cloud ceiling of less than 2,000 feet.

4. The Permittee shall not exceed the listed treatment quantities for OB/OD units found in Section D, Process Information of Attachment VI and Figure V.B-1.

5. The Permittee shall comply with the waste compatibility requirements of 40 CFR 264.17(b).

6. Collected residuals must be managed in accordance with the design plans and reports contained in Section D, Process Information of Attachment VI.

7. The Permittee shall operate and maintain run-on and run-off surface water control systems per Section D, Process Information of Attachment VI, and the Groundwater Monitoring Plan.

8. The Permittee shall empty or otherwise manage any collection and holding facilities in order to maintain the design capacity of the system in accordance with 40 CFR 264.301(i).

9. The Permittee shall cover or otherwise manage the open burning units to control wind dispersal if at present or at any future time the open burning facilities contain any particulate matter that may be subject to wind dispersal in accordance with 40 CFR 264.301(j) and Section D, Process Information of Attachment VI.

D. MONITORING AND INSPECTION

1. The Permittee shall inspect the units as specified in Section F, Procedures to Prevent Hazards of Attachment V and in accordance with the inspection schedules contained therein, 40CFR 264.15 and 40 CFR 264.303(b).

2. The Permittee shall maintain adequate fire protection equipment to assure the confinement and control of any fire resulting from OB/OD operations as specified in Section F, Procedure to Prevent Hazards of Attachment VI.

3. The Permittee shall comply with the Clean Water Act permitting requirements to maintain, operate, and inspect the run-off control ponds at the DR.

E. SURVEYING AND RECORDKEEPING

The Permittee shall maintain the following items in the operating record as by 40 CFR 264.73:

1. A permanently surveyed benchmark on the facility property with the location of the benchmark entered on the appropriate drawings.

2. On a map, the exact locations of the units and monitoring wells, with respect to permanently surveyed benchmarks.

F. CLOSURE AND POST-CLOSURE

1. At final closure of the burning grounds, or upon closure of any burning unit, or closure of the DR, or part of the range, the Permittee shall follow the procedures outlined in Section I, Closure Plan of Attachment VI. The Permittee shall attempt to clean-close as much of the burning operations as possible. Should groundwater contamination remain, the unit shall require closure as a landfill. The DR may attempt to clean-close portions, but it is unlikely that all contaminated soil could be removed; therefore, the unit should be closed as a landfill.

The Permittee shall utilize the landfill closure standards of 40 CFR 264, Subpart N.

2. At final closure as a landfill, the Permittee must cover the landfill with final cover as specified in Section I, Closure Plan of Attachment VI, which is designed and constructed to:

   a. Provide long term minimization of migration of liquids through the closed landfill;

   b. Function with minimized maintenance;

   c. Promote drainage and minimize erosion or abrasion of cover;

   d. Accommodate settling and subsidence so that the cover's integrity is maintained; and

   e. Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

   If partial clean-closure is met, an alternative cap design may be approved by the Commissioner.

3. After final closure, the Permittee must follow the plans and procedures in the approved Post-Closure Care Plan in Section I of Attachment VI, until a Post-Closure Permit is issued. After closure, the Permittee must comply with all post-closure requirements contained in 40 CFR 264.117 through 40 CFR 264.120, including maintenance and monitoring throughout the post-closure care period. The Permittee must:

   a. Maintain the integrity and effectiveness of the final cover, including making repairs to cover as necessary to correct the effects of settling, subsidence, erosion, or other events;

   b. Maintain and monitor the groundwater monitoring system and comply with all other requirements of 40 CFR 264 Subpart F;

   c. Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

   d. Protect and maintain surveyed benchmarks used in complying with 40 CFR 264.310.

VII. GROUND WATER MONITORING CONDITIONS - DEMOLITION RANGE (DR)

A. GENERAL DESCRIPTION OF THE GROUND WATER MONITORING SYSTEM AND THE UPPERMOST AQUIFER

The Demolition Range (DR) consists of multiple buried detonation chambers throughout a ridge system used to explode old munitions. According to a map constructed by Erik Kvale (1992) of the Indiana Geological Survey, this ridge/valley system is composed of the Pennsylvanian Mansfield formation which is located just above the Pennsylvanian-Mississippian unconformity. The uppermost aquifer has two ground water monitoring zones. The ground water monitoring system consists of a network of 11 wells. Four of the wells are used to monitor the upper Mansfield and Mississippian Golconda/Haney aquifer. The other seven wells are used to monitor the lower Mississippian Big Clifty/Beech Creek aquifer. The wells vary in screened depth from 10 feet to 22.5 feet for the upper zone and 49.5 feet to 82 feet for the deep zone. The well screens vary between 10 and 20 feet in length.

B. DETERMINATION OF THE TYPE MONITORING PROGRAM; 40 CFR 270.14(c)(6) AND 264.99

Statistically significant increases (SSI's) of hazardous constituents have occurred in the uppermost aquifer at the point of compliance. Therefore, the permittee must implement a compliance monitoring program per 40 CFR 264.99 semi-annually throughout the remainder of the compliance period at the DR. The permittee must comply with the conditions specified in this permit that are designed to ensure that hazardous constituents of Permit Condition VII.C detected in the ground water from the DR do not exceed the concentration limits of Permit Condition VII.D in the uppermost aquifer underlying the waste management area beyond the point of compliance as defined in Permit Condition VII.F during the compliance period as defined in Permit Condition VII.E. The Commissioner will establish this ground water protection standard in the facility permit when hazardous constituents have been detected in the ground water.

C. HAZARDOUS CONSTITUENTS 40 CFR 264.93

The hazardous constituents to which the ground water protection standard applies includes the following:

1. The permittee must collect ground water samples from the monitoring wells specified in Permit Condition VII.G to be analyzed for all constituents listed in 40 CFR 264 Appendix IX. Hazardous constituent values shall be single, independent values (not replicates) for determination of statistically significant changes.
2. The permittee must determine what hazardous constituents are present in the ground water at what concentrations by accepting the initial results of the

Appendix IX scan of Permit Condition VII.C.1 or resampling for verification within fifteen (15) days.

3. The permittee's hazardous constituent list must at a minimum consist of the metals and explosives as listed in Table 9-2 of the Ground Water Monitoring Plan (GWMP) in Appendix 2A of this permit.

D. GROUND WATER PROTECTION STANDARD (GWPS); 40 CFR 264.94

1. Alternate Concentration Limits (ACL's) for the GWPS will be utilized. These ACL's are referenced in Tables 1-2 and 1-3 in the GWMP in Appendix 2A of this permit. Following IDEM approval of the ACL justification, all applicable ACL values will be utilized as the GWPS.

2. Until the ACL's are established, the GWPS must be the established background for the metals and any hazardous constituent that was previously detected in accordance with the statistical methods discussed in Permit Condition VII.J.

3. The permittee must establish background for any hazardous constituent that is detected as a result of the Appendix IX scan in accordance with Permit Condition VII.J.

4. If a hazardous constituent is detected that is not naturally occurring then a GWPS must be established following IDEM approval of the ACL justification within thirty (30) days without a background value for comparison.

E. COMPLIANCE PERIOD; 40 CFR 264.96

The compliance period must include the active life of the facility and the closure period.

F. POINT OF COMPLIANCE (POC); 40 CFR 270.14(c)(3) AND 264.95

The POC shall be defined as the vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated unit. The POC is expressed at wells 06C03P2, 06C04P2, 06C02, and 06C06P2 for the Golconda/Haney aquifer and the POC is expressed at wells 06C03, 06C04, 06C05, 06C06, and 06C07 for the Big Clifty/Beech Creek aquifer.

G. WELL LOCATION AND MAINTENANCE; 40 CFR 270.14(c)(5), 270.14(c)(6)(ii), 264.97(a), 264.97(b) and 264.99(b)

1. The permittee's compliance ground water monitoring system shall consist of background monitoring wells 06C08P2 for the Golconda/Haney aquifer and 06C08 for the Big Clifty/Beech Creek aquifer and compliance wells; 06C03P2, 06C04P2, 06C06P2 for the Golconda/Haney aquifer and 06C02, 06C03, 06C04, 06C05, 06C06, and 06C07 for the Big Clifty/Beech Creek aquifer.

2. The permittee must inspect and maintain the monitoring wells in accordance with the schedule and procedures described in standard operating procedure (SOP) 1 of the FSP of Appendix 2B of this permit. The monitoring well locations are shown in Figure 9-1 of the GWMP Appendix 2A of the permit.

3. If it is determined that an existing monitoring well cannot yield representative samples, the permittee must replace the monitoring well within thirty (30) days, and submit a Class 1 Permit Modification meeting the requirements of 40 CFR 270.42. This modification must be submitted to the Commissioner within seven (7) days after the change is put into effect. The replacement monitoring well must meet the same depth, design and material specifications as the existing monitoring well, and be located within a ten-foot radius of same.

4. If it is determined that an existing monitoring well must be replaced, the permittee must abandon the well per 312 IAC 13-10-2.

5. The permittee must construct new wells as needed in accordance with Permit Condition VII.G.3. Detailed construction logs for existing wells are shown in Appendix A of section 4 the FSP of Appendix 2A of Attachment VII of the permit.

6. The permittee must submit to the Commissioner a report on the progress of any new borings, new or replacement wells, well removals, well repairs, or well developments, within sixty (60) days of completion. Reports shall describe the work performed, including, but not limited to, well as-built diagrams, boring logs, sample analytical results, well development data, hydraulic conductivity testing data, surveyed elevation data and any other pertinent information.

H. SAMPLING AND ANALYSIS PROCEDURES; 40 CFR 270.14(c)(6)(iv) and 264.97(d), (e)

1. The permittee must semi-annually obtain and analyze samples from the ground water monitoring wells specified in Permit Condition VII.D.1 using the techniques, procedures and equipment described in section 4.2 of the FSP of Appendix 2A of Permit Condition VII and SOP 5 of Appendix B of the FSP of Appendix 2A of Permit Condition VII for sample collection, preservation, shipment, chain-of-custody and analysis.

2. The permittee must annually determine if additional hazardous constituents have been released into the ground water by the procedures stated in Permit Conditions VII.C.1 and VII.C.2.

I. GROUND WATER ELEVATION; 40 CFR 264.97(f) and 264.99(e)

1. The permittee must determine the water-level elevation in each ground water monitoring well specified in section 4.2 of the FSP of Appendix 2A of Permit Condition VII and SOP 2 of Appendix B of the FSP of Appendix 2A of Permit Condition VII each time the ground water is sampled. Using this information, the permittee must determine the hydraulic head difference, and the direction and rate of ground water flow in the unconsolidated aquifer unit beneath the DR. The permittee must submit the results of these determinations to the Commissioner by March 1 of the following year. The permittee may use other monitoring wells or observation wells for the determination of ground water flow rate and direction with prior approval from the Commissioner.

2. The permittee must submit a Class 2 Permit Modification if and when the ground water flow direction evaluation under Permit Condition VII.G-1 indicates that the monitoring wells are no longer adequately monitoring the compliance point as defined by the management waste boundary. This proposal must be submitted to the Commissioner ninety (90) days prior to any changes to the ground water monitoring system.

J. BACKGROUND DETERMINATIONS; 40 CFR 270.14(c)(6)(iii), 264.97(g) and 264.99(c)

The permittee must establish background in accordance with the Statistical Evaluation Plan (SEP) for any current hazardous constituent or future hazardous constituent that is added to the ground water parameter list as a result of Appendix IX sampling by sampling the background monitoring wells listed in Permit Condition VII.D.1.

K. STATISTICAL PROCEDURES; 40 CFR 270.14(c)(6)(iv), 264.97(h) and 264.99(d)

1. Statistical comparisons of compliance well data to background must begin with the first historical sampling event following the conclusion of the background baseline period for constituents that are naturally occurring. Constituents that are not naturally occurring will be compared directly to the GWPS established by Permit Condition VII.D.

2. Semi-annually throughout the compliance period, the parameter analytical result for each sample collected at each down gradient compliance well must continue to be individually compared to the statistics calculated for background.

3. A summary of these statistical evaluation procedures to be used are described in the Statistical Evaluation Plan (SEP) of the GWMP of Attachment V of the permit as modified by Permit Condition X.E.

L. REPORTING, RECORD KEEPING AND RESPONSE; 40 CFR 264.97(j), and 264.99(h), 329 IAC 3.1-9-2(7)

1. If upon completion of sampling, the analytical results at any compliance point monitoring well(s) exceed the statistical criteria or the GWPS, the permittee must:

   (a) Notify the Commissioner of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded.

   (b) Submit to the Commissioner an application for a permit modification to establish a corrective action program meeting the requirements of 40 CFR 264.100 within 180 days. The application must at a minimum include;

      (i) a detailed description of corrective actions that will achieve compliance with the GWPS.

      (ii) a plan for a ground water monitoring program that will demonstrate the effectiveness of the corrective action. Such a ground water monitoring program may be based on the compliance monitoring program.

2. The analytical results at any compliance point monitoring well(s) and any verification analyses or 40 CFR 264 Appendix IX analyses (including deliverable requirements of section 3 of the QAPP) shall be submitted to the IDEM within sixty (60) days of receipt of the final laboratory technical report unless delays beyond the permittee's control occur; in which case, the IDEM shall be notified with the reason for delay within the sixty (60) day period. The permittee shall submit two (2) paper copies of the laboratory analytical results and associated statistics for each required ground water sampling event obtained to the IDEM, addressed to:

   Karyl K. Schmidt, L.P.G.
   Geology Section Chief
   Indiana Dept. of Environmental Management
   Office of Land Quality, Permits Branch
   100 N. Senate Ave., IGCN 1101
   Indianapolis, IN 46204-2251

3. The permittee shall submit an electronic report of the laboratory analytical results and field parameters for each required ground water sampling event to the IDEM within 60 days following receipt of the results from the laboratory. The electronic report must be

in the required format (available at the IDEM website) and submitted to the official IDEM website for electronic data submittal currently described at: http://www.in.gov/idem/programs/land/datasubmittal/digdatasubmittal.html. If this location changes then the permit will need to be changed accordingly without the necessity for a modification.

M. If the permittee determines that the compliance monitoring program no longer satisfies the requirements of this section, the permittee must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

VIII. GROUNDWATER MONITORING CONDITIONS AMMUNITION BURNING GROUNDS (ABG)/OLD JEEP TRAIL (OJT) AND OLD RIFLE RANGE (ORR)

A. GROUND WATER MONITORING PROGRAM

Two of the permitted Subpart X units at Crane, the Ammunition Burning Grounds and the Old Rifle Range, have groundwater contamination from other sources that interfere with traditional groundwater monitoring such as is being conducted at the Demo Range. 40 CFR 264.90(f) provides the option of an alternative groundwater monitoring program in cases such as these. This section of the permit conditions outlines the alternative groundwater monitoring program for these two units. In the event that groundwater monitoring under 40 CFR 264.90(f) is discontinued for any reason during the operational life of the Ammunition Burning Ground or the Old Rifle Range, groundwater monitoring will resume under 40 CFR 264.99.

Many elements of this plan, such as sampling methods, quality control, and analytical methods, are identical to those used for the traditional program outlined for the Demo Range, so to avoid duplication this section will outline the elements that are unique to these units.

The permit renewal application was submitted by the facility under the assumption that all three Subpart X units would be monitored under 40 CFR 264.99. Most of the elements remain the same under 40 CFR 264.90(f), but there are a few changes from the original application for the Ammunition Burning Grounds and the Old Rifle Range.

- The location of monitoring points is the same except for the addition of four wells at the Old Rifle Range.

- The constituent list has changed because of studies by the facility under EPA oversight at one of the SWMUs at the facility. There is now a modified method 8330 for explosives that has more constituents.

- The expanded parameter list is the same Appendix IX list that is used for the Demo Range but is sampled biennially rather than annually.

- The main difference is the statistical plan. Subpart F monitoring under 40 CFR 264.99 is looking for statistical evidence of releases, where 264.90(f) assumes there have been releases and looks for changes in concentrations that might indicate a new release or might result in an exceedance of the groundwater or surface water protection standards. A Compliance Schedule item has been included to develop the new statistical plan.

Significant elements of the monitoring plan are:

- A table listing screening criteria for explosives in surface water and groundwater is provided in Appendix 2E.

- Maps showing the sampling locations within the units are in the GWMP figures 7-1 and 8-1, and in the Field Sampling Plan figures 3-1 and 3-2. There is a Compliance Schedule item to update the sampling points at the ORR to include four more wells.

- Tables listing wells and constituents are in the Field Sampling Plan. The information for the ABG is in Table 4-3, and the ORR is in Table 4-6.

B. GROUNDWATER MONITORING SYSTEM

1. Monitoring System

The groundwater monitoring program for these two units is covered in detail in the Groundwater Monitoring Plan (GWMP), Field Sampling Plan (FSP), and the Quality Assurance Project Plan (QAPP), which are included in this permit as Appendices 2A, 2B, and 2D.

2. Operation and Maintenance

The Permittee will operate and maintain the groundwater monitoring system as outlined in the Groundwater Monitoring Plan in Attachment D.

3. Installation of Monitoring Wells

In the event that new, or replacement, monitoring wells are necessary, the Permittee will submit a written request for a permit modification to authorize a change to the approved ground water monitoring system. The Permittee will consult with IDEM and seek approval prior to initiating any well installation program or other substantive changes in the monitoring network or program.

C. SAMPLING PROCEDURE

The Permittee will use the sampling procedures described in the Groundwater Monitoring Plan to collect, preserve, and control all groundwater and surface water samples.

D. FREQUENCY FOR COLLECTING SAMPLES AND CONDUCTING EVALUATIONS

The Permittee will follow the sampling and evaluation program outlined in the Groundwater Monitoring Plan in Appendix 2A, 2B, and 2D.

E. STATISTICAL EVALUATIONS

The Permittee will determine whether there is statistically significant evidence of increased contamination for each hazardous constituent that exceeds the relevant protection standards for that constituent in each monitoring location. A requirement to provide a statistical plan that will meet this standard is included in the Compliance Schedule.

F. DETECTION OF AN INCREASING CONCENTRATION TREND

If the Permittee determines, pursuant to Permit Condition VII.E., that there is an increasing trend in the concentration of any constituent the Permittee will:

1. Provide Notification

Notify the Commissioner of this finding in writing within fourteen (14) days. The notification will indicate what concentration limit(s) has (have) been exceeded.

2. Submit A Corrective Action Plan

Submit a corrective action plan to address the increase within 60 days of discovery of the exceedance.

G. PERMIT MODIFICATIONS

If the Permittee determines that the monitoring program no longer satisfies the requirements for monitoring outlined in Permit Condition VII. the Permittee must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

H. RECORD KEEPING AND REPORTING

Within 60 days of the completion of each routine or verification ground water sampling event, the Permittee will enter the results of each ground water sampling event into the facility record. Additionally, a complete ground water report (one hard copy and one

digital copy) will be submitted annually.

All analytical data from required ground water sampling events must be submitted to OLQ within sixty (60) days of the sampling event. This submittal must include one (1) original unbound laboratory certified report with field sheets and chain of custody forms; and one (1) electronic version of the analytical results with the field parameters including pH, specific conductance**,** dissolved oxygen, Eh, temperature, well depth, depth to water**,** and static water elevation.

The electronic version must be on a DOS formatted 3 1/2 inch diskette, 100 MB Zip disk, or CD-ROM; or may be submitted via electronic mail (e-mail) to the e-mail address**,** **olqdata@idem.in.gov** . The facility name and a brief description of the file contents should be clearly marked on the digital media or typed in the subject heading of the e-mail. The electronic version should be submitted as an ASCII, tab-delimited text file and contain the facility's name and permit number. Field parameters and analytical results must include the fields listed below:

1. Sampling Date: Month, day, and year
2. Well Name: Include permitted and corrective action wells
3. Sample Type: Regular, duplicate(s), trip blank(s), equipment blank(s), field blank(s), verification re-sample(s) and replicate(s)
4. Sample Medium: Ground water, leachate, soil, surface water, etc.
5. Species Name: Chloride, sodium, ammonia, etc.
6. Concentration (results)
7. Concentration Units: mg/l, ug/l, standard units for pH, degrees Celsius (^{o}C), or degrees Fahrenheit (^{o}F) for temperature, mvolts for Eh, and umhos/cm for specific conductance
8. Detected: Yes or no
9. Detection Limit
10. Analytical Methods
11. Estimated Value: Indicate "Yes" if the reported value is an estimated value. If a value is estimated, use the "Comment" field to explain why the value was estimated
12. Comment: Analytical lab and/or field personnel comments regarding the reported results.

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IX. AIR EMISSIONS CONDITIONS

A. CONTAINERS

The Permittee shall comply with all applicable requirements of 40 CFR Part 264, Subpart CC, regarding air emission standards for containers.

B. RECORDKEEPING

The Permittee shall comply with all applicable recordkeeping and reporting requirements described in 40 CFR 264.1089 and 264.1090.

C. DUTY TO COMPLY WITH FUTURE REQUIREMENTS

The Permittee shall comply with all self-implementing provisions of any future air regulations promulgated by RCRA, as amended by HSWA.

X. CORRECTIVE ACTION CONDITIONS

A. STANDARD REQUIREMENTS

1. Corrective Action At The Facility

In accordance with Section 3004(u) of RCRA (Indiana Code 13-22-2-5) and the regulations promulgated pursuant thereto, the Permittee must institute Corrective Action as necessary to protect human health and the environment for all releases of hazardous waste(s) or hazardous constituent(s) from any solid waste management unit (SWMU) or area of concern (AOC) at the facility, regardless of the time the waste was placed in such units. The Pemittee shall perform all such work in a manner consistent with, at a minimum, the Corrective Action Scope of Work found in Section J, Attachment 0.

2. Corrective Action Beyond The Facility Boundary

In accordance with Section 3004(v) of RCRA (Indiana Code 13-22-2-5) and the regulations promulgated pursuant thereto, the Permittee must implement Corrective Action(s) beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to the IDEM's satisfaction that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be addressed under the RCRA Facility Investigation, Corrective Measures Study, and Corrective Measures Implementation phases, as determined to be necessary on a case-by-case basis.

3. Notification

a. Field Activities

The Permittee shall notify IDEM at least seven (7) days before engaging in any field activities, such as well drilling, installation of equipment, or sampling. At the request of IDEM, the Permittee shall provide IDEM or its authorized representative split samples of all samples collected by the Permittee pursuant to this permit. Similarly, at the request of the Permittee, IDEM shall allow the Permittee or its authorized representatives to take split or duplicate samples of all samples collected by IDEM under this permit.

b. Submittals

Four (4) copies of all reports, plans, and other submissions relating to or required by this permit shall be sent to:

Indiana Department of Environmental Management
OLQ Permits Branch
100 N. Senate Avenue
Indianapolis, IN 46204
Attention: Chief, Hazardous Waste Permit Section

B. IDENTIFICATION OF SWMUs

1. Definitions

a. "Area of Concern (AOC)" means a unit or area that could potentially produce unacceptable exposures or be a potential source of ground water contamination, but the unit or area does not meet the definition of a solid waste management unit.

b. "Facility" means all contiguous property under the control of the owner/operator of a facility seeking a permit under Subtitle C.

c. "Hazardous waste," as defined in IC 13-11-2-99, means a solid waste or combination of solid wastes that may cause or significantly contribute to an increase in: mortality, serious irreversible illness, or an incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment. This term is further defined in 40 CFR Part 261.3.

d. "Hazardous constituent" means any constituent identified in Appendix VIII of 40 CFR Part 261, or any constituent identified in Appendix IX of 40 CFR Part 264.

e. "Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes or hazardous constituents into the environment, including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents.

f. "Solid waste" means any garbage, refuse, sludge, or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, or agricultural operations or from community activities. This term is further defined in 40 CFR Part 261.2.

g. "Solid Waste Management Unit (SWMU)" means any discernable unit, permitted or unpermitted, existing or historical, at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

2. SWMUs and AOCs Requiring Corrective Action

Based on the information contained in the administrative record, corrective action is required at the SWMUs and AOCs listed in Section J of Attachment 0. A map showing the location of these SWMUs and AOCs is given in Exhibit J-1.

3. Coordination with U.S. EPA

Permittee has been undertaking corrective action measures at 33 Solid Waste Management Units (SWMU) under the auspices of its 1995 U.S. EPA permit. The 1995 U.S. EPA permit established the Hazardous and Solid Waste Amendment (HSWA) Corrective Action Requirements and Compliance Schedules obligating the U.S. Navy to perform RCRA Facility Investigations (RFIs) at 33 SWMUs, to conduct Corrective Measures Studies, and to implement corrective measures if needed. As the State of Indiana has been authorized to administer this program in lieu of U.S. EPA, Permittees ongoing corrective actions at the SWMUs will continue under the "U.S. EPA/IDEM Work Sharing Agreement for Corrective Actions Activities at Naval Surface Warfare Center-Crane Division" and the "Naval Surface Warfare Center Crane Division Partnering Implementation Agreement of July 2000" between the U.S. Navy, U.S. EPA, and IDEM.

C. NEWLY IDENTIFIED SWMUs OR RELEASES

1. Notification Requirements

The Permittee shall notify the IDEM, within thirty (30) days of discovery, of the following information requirements for any new SWMU identified at the facility, in accordance with 329 IAC 3.1-13-1 and 40 CFR 270.14(d):

a. the location of the unit on the site topographic map;

b. designation of the type of unit;

c. general dimensions and structural description (supply any available drawings);

d. when the unit was operated; and

e. specifications of all waste(s) that have been managed at the unit.

2. Release Information

The Permittee must submit to the IDEM, within thirty (30) day of discovery, all available information pertaining to any release of hazardous waste(s) or hazardous constituent(s) from any new or existing SWMU.

3. Corrective Action

The IDEM will review the information provided in Condition X.C. 1 and 2 above, and may as necessary, require further investigations or corrective measures. The Permittee shall submit a written RFI Workplan to the Section Chief of the Hazardous Waste Permit Section in accordance with Condition X.D.2.

D. CORRECTIVE ACTION ACTIVITIES

The major tasks and required submittal dates are shown below. Additional tasks and associated submittal dates may also be specified in the Corrective Action Activities Schedule (Condition X.F.).

1. Interim Measures (IM)

a. The Permittee may undertake interim measure activities to prevent or minimize the further spread of contamination while long-term remedies are pursued. An IM Workplan shall be submitted to the IDEM for approval before the Permittee initiates any remedial activity. The interim measure(s) must be capable of being integrated into any long-term solution at the facility.

b. In the event the Permittee identifies an immediate threat to human health or the environment, the Permittee shall immediately notify the Section Chief orally and in writing within seven (7) days summarizing the immediacy and magnitude of the potential threat to human health or the environment.

Upon receiving this information, the IDEM will determine if an IM Workplan is necessary. If one is necessary, the Section Chief will send a notice to the Permittee requiring the submission of an IM Workplan. Within twenty-one (21) days after receiving this notice, the Permittee shall submit to the Section Chief a workplan for approval that identifies the interim measure(s).

The workplan should be consistent with and integrated into any long-term solution at the facility. In addition, the following Interim Measure schedule shall be initiated:

i. Within five (5) days, the Permittee shall provide an alternate water supply to parties that have a contaminated water supply well;

ii. Within seven (7) days, the Permittee shall submit a report to the Section Chief detailing the activity pursued and a plan for further Interim Measures activity;

iii. Within seven (7) days following the Section Chief's transmission of comments, the Permittee shall revise the plan in accordance with the comments; and

iv. Within seven (7) days following the IDEM's approval or modification of the plan, the Permittee shall implement the revised plan in accordance with the schedule therein.

2. RCRA Facility Investigation (RFI)

The Permittee shall conduct an RFI to thoroughly evaluate the nature and extent of the release of hazardous waste(s) and hazardous constituent(s) from all SWMUs and AOCs identified as requiring an RFI.

a. RFI Workplan

The Permittee shall submit a written RFI Workplan to the Section Chief within ninety (90) days after written notification by the Section Chief that further investigation is necessary.

The IDEM will approve, modify and approve, or disapprove and provide comments on the Workplan in writing to the Permittee. Within sixty (60) days of receipt of such comments, the Permittee shall provide a response to the IDEM's comments.

b. RFI Implementation

Within thirty (30) days of the IDEM's written approval of the RFI Workplan, the Permittee shall implement the plan according to the terms and schedule contained therein.

c. RFI Report

Within ninety (90) days after the completion of the RFI, the Permittee shall submit an RFI Report to the Section Chief. The RFI Report shall describe the procedures, methods, and results of the RFI. The report must contain adequate information to support further corrective action decisions at the facility. After the Permittee submits the RFI Report, the IDEM shall either approve or disapprove the report in writing. If the IDEM disapproves the report, the Section Chief shall notify the Permittee in writing of the deficiencies. The Permittee has thirty (30) days after receipt of the IDEM's comments to submit a revised RFI Report to the Section Chief.

3. Determination of No Further Action

a. Permit Modification

After completion of the RFI, and based on its results and other relevant information, the Permittee may submit an application to the Section Chief for a permit modification under 40 CFR 270.42 to terminate the corrective action tasks of the Corrective Action Activities Schedule for all or a portion of the facility. Tasks identified in Permit Condition V.F. for the SWMUs, solid waste management areas (a group of SWMUs in an area to be addressed as a single unit), and/or the AOCs identified in the modification (for a determination of no further action) shall be stayed pending a decision by IDEM. This permit modification must conclusively demonstrate that there are no releases of hazardous waste(s), including hazardous constituents, from SWMUs or AOCs at the facility that pose a threat to human health or the environment.

If, based upon review of the Permittee's request for a permit modification, the results of the completed RFI, and other information, IDEM determines that releases or suspected releases that were investigated either are nonexistent or do not pose a threat to human health or the environment, IDEM will grant the requested modification.

b. Further Investigations

A determination of no further action shall not preclude the IDEM from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates that a release or likelihood of a release from a SWMU or AOC at the facility is likely to pose a threat to human health or the environment. In such a case, the IDEM shall initiate a modification to the Corrective Action Activities

Schedule to rescind the determination made in accordance with Condition X.D.3.a. Additionally, the IDEM may determine that there is insufficient information on which to base a determination, and may require the Permittee to perform additional investigations as needed to generate the needed information.

4. Corrective Measures Study (CMS) and Remedy Selection

If the IDEM determines, based on the results of the RFI and other relevant information, that corrective measures are necessary, the Section Chief will notify the Permittee in writing that the Permittee shall conduct a CMS. The purpose of the CMS is to develop and evaluate the corrective action alternative(s) that will satisfy the performance objectives specified by the IDEM. The CMS shall be conducted within sixty (60) days of notification by the Section Chief that the CMS is required. This period of time may be extended by the Section Chief if necessary to adequately complete the CMS. Note that this process can be significantly shortened by the selection of presumptive remedies (i.e., remedies that are known to be effective). Additional tasks and associated submittal dates may also be specified in the Corrective Action Activities Schedule (Condition X.F.).

a. CMS Report

Within sixty (60) days after the completion of the CMS, the Permittee shall submit a CMS Report to the Section Chief. The CMS Report shall summarize the results of the investigations for each remedy studied and must include an evaluation of each remedial alternative. After the Permittee submits the CMS Report, the IDEM shall either approve, modify and approve, or disapprove the Report. If the IDEM disapproves the Report, the Section Chief shall notify the Permittee in writing of the deficiencies. The Permittee has thirty (30) days after receipt of the IDEM's comments to submit a revised CMS Report to the Section Chief. The CMS Report, as approved, becomes an enforceable condition of this permit.

b. CMS Remedy Selection

The IDEM will select a corrective measure for implementation based on the following factors. The corrective measure selected for implementation must: (1) be protective of human health and the environment; (2) attain media cleanup standards; (3) control the source(s) of releases so as to reduce or eliminate further releases of hazardous waste(s) (including hazardous constituent(s)); (4) minimize the transfer of contamination from one environmental medium to another; and (5) comply with all applicable standards for management of wastes.

If two or more of the corrective measures studied meet the threshold criteria set out above, the IDEM will choose among alternatives for Corrective Measures Implementation by considering remedy selection factors including: (1) long-term reliability and effectiveness; (2) the degree to which the corrective measure will reduce the toxicity, mobility or volume; (3) the corrective measure's short-term effectiveness; (4) the corrective measure's implementability; and (5) the relative cost associated with the alternative. In selecting the corrective measure(s), the IDEM may also consider such other factors as may be presented by site-specific conditions.

5. Permit Modification

Within thirty (30) days of IDEM's selection of a corrective measure, IDEM or the Permittee will initiate a permit modification, pursuant to 40 CFR 270.41 or 40 CFR 270.42, respectively, for the implementation of the corrective measure(s) selected.

6. Corrective Measures Implementation (CMI)

a. If the corrective measure(s) recommended in the Corrective Measures Study Report is (are) not the corrective measure(s) selected by IDEM after consideration of public comments, the Section Chief shall inform the Permittee in writing of the reasons for such decision. Thirty (30) days after the effective date of the permit modification, the Permittee shall implement the corrective measure(s).

b. Financial Assurance

As part of the permit modification of this permit to incorporate the CMI, the Permittee shall provide financial assurance in the amount specified by the IDEM for necessary corrective action activities as required by 40 CFR 264.101(b) and (c).

7. Incorporation of plans and reports

All approved plans and reports prepared for this permit shall be incorporated into this permit on the date the Section Chief or his/her designee approves such plan or report.

E. DISPUTE RESOLUTION

1. If IDEM disapproves or modifies and approves any submission required by Condition X. of the permit, IDEM shall provide the Permittee with a written notice setting forth the reasons for the disapproval or modification and approval.

2. If the Permittee disagrees, in whole or in part, with any written decision concerning IDEM's disapproval or modification and approval of any submission required by Condition X. of the permit, the Permittee shall notify IDEM of the dispute. The Permittee and IDEM shall informally, and in good faith, endeavor to resolve the dispute.

3. If the Permittee and IDEM cannot resolve the dispute informally, the Permittee may pursue the matter formally by submitting a written statement of position to the Commissioner or his/her designee, within twenty-eight (28) days of receipt of IDEM's written disapproval or modification and approval. The Permittee's statement of position shall set forth the specific matters in dispute, the position that the Permittee asserts should be adopted as consistent with the requirements of the permit, the basis for the Permittee's position, and shall include any supporting documentation. If the Permittee fails to follow any of the requirements contained in this paragraph, then it shall have waived its right to further consideration of the disputed issue.

4. IDEM and the Permittee shall have an additional fourteen (14) days from the date of the Commissioner’s receipt of the Permittee's statement of position to meet or confer to attempt to resolve the dispute. This time period may be extended by IDEM for good cause. If agreement is reached, the Permittee shall submit a revised submission, if necessary, and shall implement the submission in accordance with such agreement.

5. If the IDEM and the Permittee are not able to reach agreement within the 14-day period, or such longer period corresponding to IDEM’s extension for good cause, the Permittee may submit any additional written arguments and evidence not previously submitted, or further explain any arguments or evidence previously submitted, to the Commissioner. Based on the record, the Commissioner, or delegate, will thereafter issue a written decision that shall include a response to the Permittee’s arguments and evidence. This written decision will constitute final agency action.

6. Notwithstanding the invocation of this dispute resolution procedure, the Permittee shall proceed to take any action required by those portions of the submission and of the permit that IDEM determines are not substantially affected by the dispute. The activity schedule for those portions of the submission and of the permit which are substantially affected by the dispute shall be suspended during the period of dispute resolution.

F. CORRECTIVE ACTION ACTIVITIES SCHEDULE

	Activity	Due Date
1.	IM Workplan	21 days after notice by the Section Chief or his/her designee
2.	RFI Workplan	90 days after receipt of Section Chief's notification
3.	Notification of newly identified SWMUs	30 days after discovery
4.	RFI Workplan for newly identified SWMUs	90 days after receipt of Section Chief's notification
5.	RFI Workplan modification	60 days after receipt of Section Chief's comments
6.	RFI Implementation	30 days after RFI Workplan approved
7.	RFI Report	90 days after completion of RFI
8.	RFI Report Modification	30 days after receipt of Section Chief's comments
9.	Progress Reports on Tasks I through IV (See Corrective Action Scope of Work)	Quarterly, on the tenth day of January, April, July, and October of each year after effective date of permit
10.	CMS Report	60 days after receipt of Section Chief's notification
11.	CMS Report modification	30 days after receipt of Section Chief's comments
12.	Permit Modification for Corrective Measure Implementation	30 days after receipt of Section Chief's notification (Modification may be a Class 1, 2, or 3 at Section Chief's discretion)
13.	CMI Program Plan	30 days after effective date of permit

		modification
14.	CMI Program Plan Modification	30 days after receipt of Section Chief's comments
15	CMI Reports	Quarterly until construction of corrective measure is complete
16.	CMI Report Modification	30 days after receipt of Section Chief's comments
17.	Operation and Maintenance Progress Reports	Quarterly, on the tenth day of January, April, July, and October of each year after effective date of permit

XI. COMPLIANCE SCHEDULE CONDITIONS

A. Within thirty (30) days of the effective date of this permit, the permittee shall submit a facility topographic map or drawing which identifies the location(s) of fire control facilities.

B. Within thirty (30) days of the effective date of this permit, the permittee shall submit a report on the results of the performance test for the Contained Detonation Chamber unit in accordance with the approved test plan. The report shall include operating limits for the net explosive weight feed rate, the minimum purge time, the maximum expansion chamber pressure prior to detonation, and the minimum air filter pressure drop as established in the performance test. The net explosive weight feed rate shall not be greater than the estimate used in the risk assessment.

C. The risk assessment will be reviewed and accepted prior to continued operation of the Contained Detonation Chamber (CDC).

D. Within one (1) year of the effective date of this permit, the permittee shall provide equipment or procedures for the Mobile Plasma Treatment System (MPTS) incinerator to prevent overpressurization of the slide gate housing in the event that waste is accidentally ignited with both slide gate valves closed in accordance with the certification for that feed system dated September 18, 2002.

E. Within thirty (30) days of the effective date of the permit, for each of the 9-ABG, 12-ABG, and 13-ABG open burn units, provide a specific reference to the location in the Final Air Emissions Human Health Risk document which establishes the treatment rate for which risk was assessed for that unit. Failure to provide this information within thirty (30) days will result in suspension of unit operation until a demonstration that human health risk has been assessed for the treatment rate for this unit is submitted and has been accepted.

F. Within thirty (30) days of the effective date of the permit, the Permittee shall submit a plan establishing a program to phase out the treatment of PEP contaminated solvents at the ABG treatment area.

G. Within sixty days (60) of the effective date of the permit, the Permittee shall submit a plan for a monitoring program to ensure that continued open burn/open detonation treatment activities are protective of human health and the environment relative to local surface soils.

H. Within sixty (60) days of the effective date of the permit, the permittee shall specify wind directions which would preclude burning at the ABG area units. The wind directions shall

be specified in accordance with AMC Regulation No. 755-8.

I. Following the ground water sampling procedures outlined in the Appendix 2B (FSP) of this permit, the permittee must perform/initiate an Appendix IX scan for wells listed in Permit Condition VII.G.1. These analyses shall be conducted either within ninety (90) days of the effective date of the permit, or on the next scheduled sampling event to determine whether additional hazardous constituents are present in the uppermost aquifer.

J. The permittee must provide boring logs and well construction diagrams for each ground water monitoring well at the DR within thirty (30) days of the effective date of this permit. The boring logs provided in Section 4, Appendix A of the FSP are not easily found for the DR. It is difficult to determine which log belongs to the DR's wells. The well construction diagram in Section 3, Figure 3-6 of the FSP is not specific to each well but just one generalized depiction.

K. The permittee must provide adequate justification for the proposed ACL's at the Demo Range within thirty (30) days of the effective date of this permit. There is currently no ACL justification/discussion in Appendix 2A (GWMP) of the permit. Tables 1-2 and 1-3 in Appendix 2A only show ACL's for VOC's and explosives.

L. The permittee must provide an adequate StEP for the Demo Range within thirty (30) days of the effective date of the permit. The permittee must establish background limits. The StEP must be modified to compensate for adequate statistical comparisons for a compliance monitoring program.

M. Within ninety (90) days of the effective date of this permit the facility shall provide to the IDEM a statistical plan that will meet the objectives in Permit Condition VIII.E. The plan must outline both the statistical methods used and the actions to be taken in the event that a statistical exceedence is identified.

N. Within ninety (90) days of the effective date of this permit the facility shall provide to the IDEM revised pages for the groundwater monitoring attachments to update references to the explosives method 8330 to indicate the Modified 8330 method Crane has developed along with the EPA for all sites at Crane.

O. Within ninety (90) days of the effective date of this permit the facility shall provide to the IDEM revised pages for the groundwater monitoring attachments to update the list of wells to be sampled, as well as applicable figures, at the Old Rifle Range to include wells 06C09, 06C17, 06C22, and 06C23.